


 EUMOS 40509 CS-TS LOGISTIC LAB Cargo Securing Training Services Safe transport	Customer DRUMCLIP		Date 10-5-2022	 EUMOS 40 509
	Project Drumclip test	Reference TH DC 18 A 2 A 2	Revision 01	

1. Load unit descriptive data

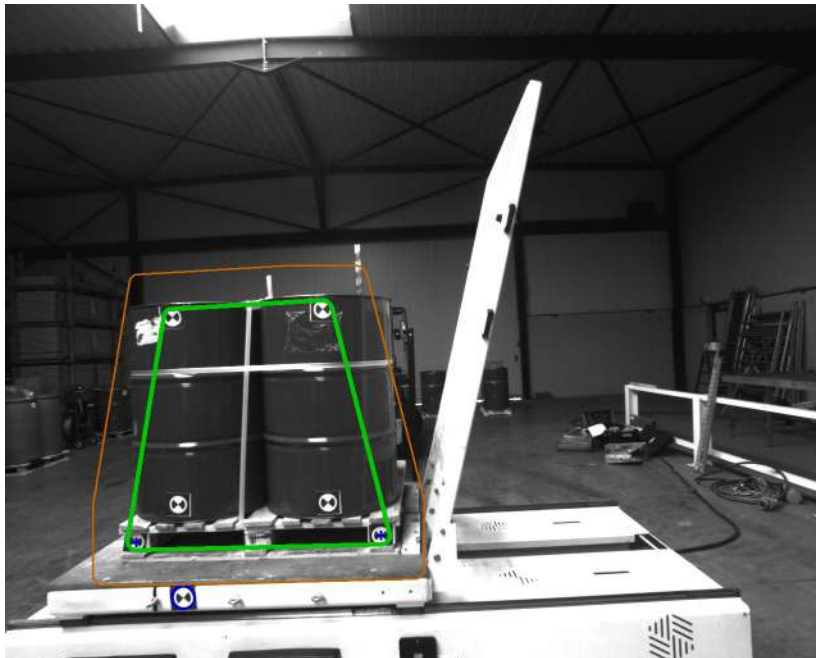
- *Dimensions (mm):* 1000 X 1150 X 1150
- *Weight (kg):* 850
- *Center of Gravity (mm):* H 590 x L575 x W575
- *Nature of the Products:* tighthead drums
- *Description of Primary Pack:* 4 metal Tighthead drums Strap CB 65 cordstrap
2 drumclips DC 18 A red
- *Layer Stacking pattern:* 1 layer of 4 drums
- *Type of Pallet:* CP 9
- *Responsible of the description:* Dhr. Wouter Geldhof

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2. Test related data

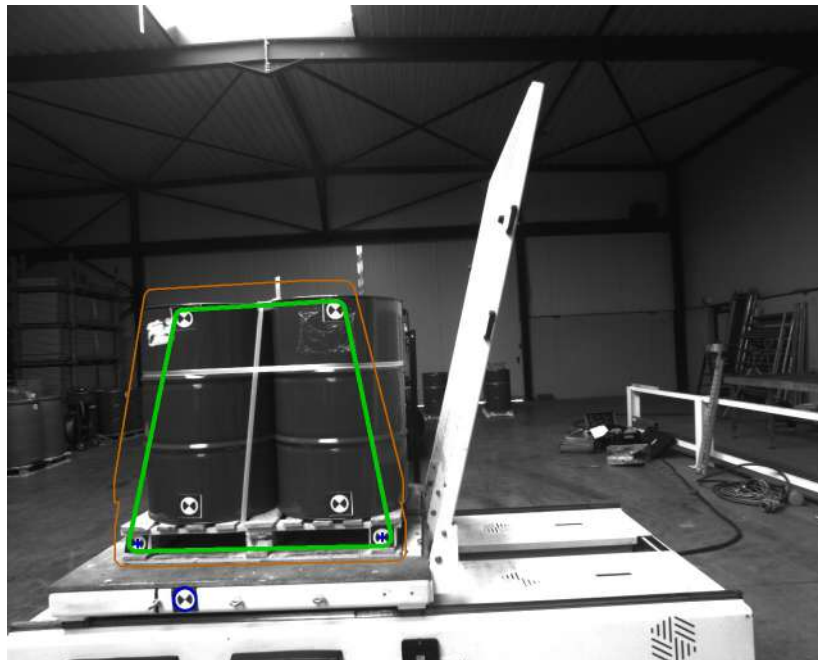
2.1. Orientation of the test: Length

- *Date of Test:* 10/5/2022
- *Place:* Brugge
- *Rigidity (g):* 0.80G
- *Testing History:* non

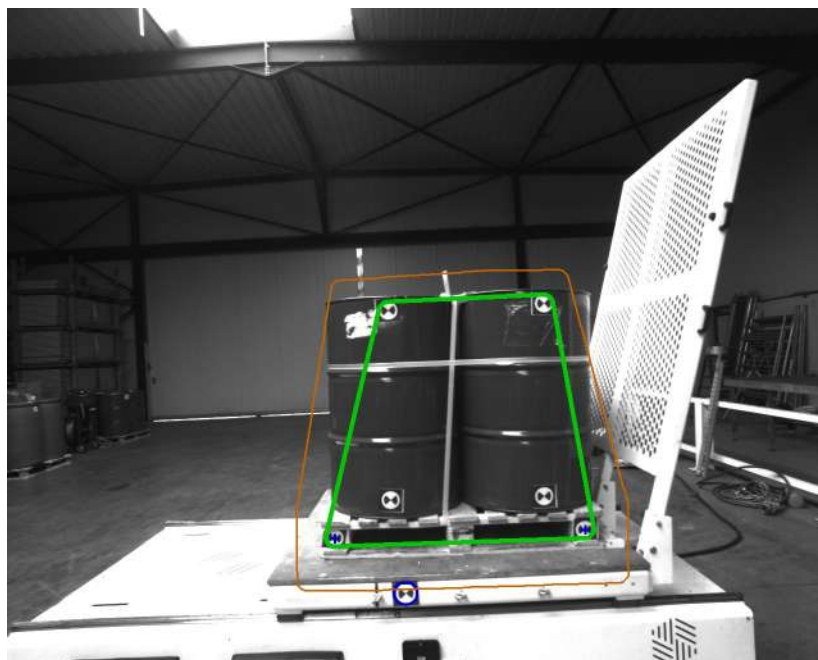


Load Before Test



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Permanent Deformation



Max Elastic Deformation



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3. Test Validation


- *Temperature of the test area:* 22°
- *Humidity of the test area:* 65%
- *Responsible of Report:* Dhr. Geert Frans
- *Sign:*



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4. Annex



Date	10/5/2022	
Project/Customer	Drumclip	
Load Reference	TH DC 18 A 2 A 2	
Acceleration test	0.80G	
Load Height (mm)	1000	
Load Weight (kg)	850	
Test Method	CUSTOM	
Center Of Gravity	0	

Permanent		Elastic (10%)
h < 200 mm	h > 200 mm	
40 mm	60 mm	100 mm

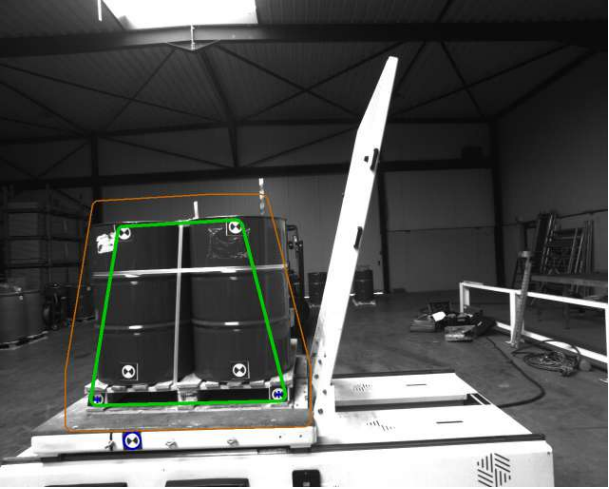


Figure 1. First Detected Frame



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Permanent Deformation				
Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
479	3976	9	60	OK

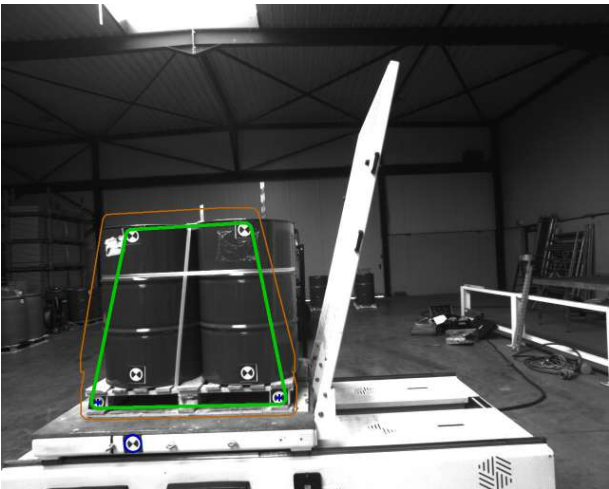
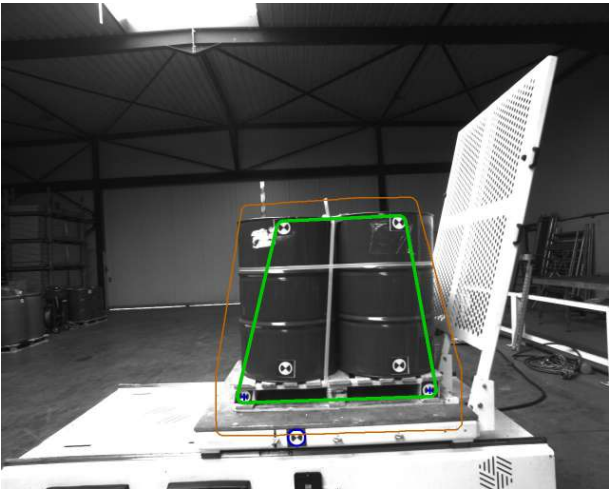


Figure 2. Permanent Deformation

Max/Over Elastic Deformation				
Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
136	1129	37	100	OK





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Figure 3. Maximum Elastic Deformation



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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
0	0	0	100	OK
1	8	0	100	OK
2	17	0	100	OK
3	25	0	100	OK
4	33	0	100	OK
5	42	0	100	OK
6	50	0	100	OK
7	58	0	100	OK
8	66	0	100	OK
9	75	0	100	OK
10	83	0	100	OK
11	91	0	100	OK
12	100	0	100	OK
13	108	0	100	OK
14	116	0	100	OK
15	125	0	100	OK
16	133	0	100	OK
17	141	0	100	OK
18	149	0	100	OK
19	158	0	100	OK
20	166	0	100	OK
21	174	0	100	OK
22	183	0	100	OK
23	191	0	100	OK
24	199	0	100	OK
25	208	0	100	OK
26	216	0	100	OK
27	224	0	100	OK
28	232	0	100	OK
29	241	1	100	OK
30	249	0	100	OK
31	257	1	100	OK
32	266	0	100	OK
33	274	0	100	OK
34	282	1	100	OK
35	290	1	100	OK
36	299	1	100	OK
37	307	1	100	OK
38	315	1	100	OK
39	324	3	100	OK
40	332	1	100	OK
41	340	1	100	OK
42	349	3	100	OK
43	357	3	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
44	365	3	100	OK
45	374	3	100	OK
46	382	5	100	OK
47	390	3	100	OK
48	398	3	100	OK
49	407	5	100	OK
50	415	5	100	OK
51	423	5	100	OK
52	432	7	100	OK
53	440	7	100	OK
54	448	5	100	OK
55	457	7	100	OK
56	465	7	100	OK
57	473	7	100	OK
58	481	7	100	OK
59	490	9	100	OK
60	498	10	100	OK
61	506	11	100	OK
62	515	11	100	OK
63	523	11	100	OK
64	531	12	100	OK
65	540	12	100	OK
66	548	13	100	OK
67	556	13	100	OK
68	564	13	100	OK
69	573	14	100	OK
70	581	14	100	OK
71	589	15	100	OK
72	598	15	100	OK
73	606	16	100	OK
74	614	17	100	OK
75	622	17	100	OK
76	631	18	100	OK
77	639	18	100	OK
78	647	18	100	OK
79	656	18	100	OK
80	664	19	100	OK
81	672	19	100	OK
82	681	19	100	OK
83	689	21	100	OK
84	697	21	100	OK
85	706	22	100	OK
86	714	23	100	OK
87	722	24	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
88	730	24	100	OK
89	739	24	100	OK
90	747	24	100	OK
91	755	24	100	OK
92	764	26	100	OK
93	772	26	100	OK
94	780	26	100	OK
95	789	26	100	OK
96	797	26	100	OK
97	805	28	100	OK
98	813	28	100	OK
99	822	28	100	OK
100	830	30	100	OK
101	838	30	100	OK
102	847	30	100	OK
103	855	32	100	OK
104	863	31	100	OK
105	872	31	100	OK
106	880	30	100	OK
107	888	32	100	OK
108	896	32	100	OK
109	905	32	100	OK
110	913	32	100	OK
111	921	32	100	OK
112	930	32	100	OK
113	938	33	100	OK
114	946	33	100	OK
115	955	33	100	OK
116	963	32	100	OK
117	971	32	100	OK
118	979	31	100	OK
119	988	31	100	OK
120	996	31	100	OK
121	1004	31	100	OK
122	1013	31	100	OK
123	1021	31	100	OK
124	1029	31	100	OK
125	1038	32	100	OK
126	1046	32	100	OK
127	1054	30	100	OK
128	1062	30	100	OK
129	1071	30	100	OK
130	1079	30	100	OK
131	1087	32	100	OK

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132	1096	33	100	OK
133	1104	34	100	OK
134	1112	35	100	OK
135	1120	36	100	OK
136	1129	37	100	OK
137	1137	36	100	OK
138	1145	36	100	OK
139	1154	34	100	OK
140	1162	35	100	OK
141	1170	34	100	OK
142	1179	33	100	OK
143	1187	33	100	OK
144	1195	30	100	OK
145	1204	30	100	OK
146	1212	29	100	OK
147	1220	27	100	OK
148	1228	27	100	OK
149	1237	28	100	OK
150	1245	27	100	OK
151	1253	26	100	OK
152	1262	25	100	OK
153	1270	26	100	OK
154	1278	25	100	OK
155	1286	26	100	OK
156	1295	24	100	OK
157	1303	25	100	OK
158	1311	24	100	OK
159	1320	24	100	OK
160	1328	25	100	OK
161	1336	24	100	OK
162	1345	23	100	OK
163	1353	21	100	OK
164	1361	22	100	OK
165	1370	23	100	OK
166	1378	22	100	OK
167	1386	22	100	OK
168	1394	21	100	OK
169	1403	21	100	OK
170	1411	20	100	OK
171	1419	20	100	OK
172	1428	20	100	OK
173	1436	19	100	OK
174	1444	18	100	OK
175	1453	16	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
176	1461	17	100	OK
177	1469	16	100	OK
178	1477	16	100	OK
179	1486	15	100	OK
180	1494	14	100	OK
181	1502	16	100	OK
182	1511	15	100	OK
183	1519	15	100	OK
184	1527	14	100	OK
185	1536	14	100	OK
186	1544	14	100	OK
187	1552	13	100	OK
188	1560	13	100	OK
189	1569	13	100	OK
190	1577	13	100	OK
191	1585	13	100	OK
192	1594	13	100	OK
193	1602	12	100	OK
194	1610	10	100	OK
195	1619	9	100	OK
196	1627	11	100	OK
197	1635	11	100	OK
198	1643	10	100	OK
199	1652	8	100	OK
200	1660	9	100	OK
201	1668	9	100	OK
202	1677	8	100	OK
203	1685	9	100	OK
204	1693	8	100	OK
205	1702	9	100	OK
206	1710	8	100	OK
207	1718	8	100	OK
208	1726	7	100	OK
209	1735	9	100	OK
210	1743	9	100	OK
211	1751	8	100	OK
212	1760	7	100	OK
213	1768	7	100	OK
214	1776	7	100	OK
215	1785	7	100	OK
216	1793	7	100	OK
217	1801	8	100	OK
218	1809	7	100	OK
219	1818	7	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
220	1826	8	100	OK
221	1834	7	100	OK
222	1843	7	100	OK
223	1851	7	100	OK
224	1859	7	100	OK
225	1868	6	100	OK
226	1876	7	100	OK
227	1884	7	100	OK
228	1892	6	100	OK
229	1901	7	100	OK
230	1909	8	100	OK
231	1917	7	100	OK
232	1926	6	100	OK
233	1934	6	100	OK
234	1942	8	100	OK
235	1951	7	100	OK
236	1959	7	100	OK
237	1967	8	100	OK
238	1975	8	100	OK
239	1984	8	100	OK
240	1992	9	100	OK
241	2000	8	100	OK
242	2009	9	100	OK
243	2017	10	100	OK
244	2025	10	100	OK
245	2034	10	100	OK
246	2042	8	100	OK
247	2050	8	100	OK
248	2058	8	100	OK
249	2067	8	100	OK
250	2075	8	100	OK
251	2083	10	100	OK
252	2092	10	100	OK
253	2100	9	100	OK
254	2108	9	100	OK
255	2116	7	100	OK
256	2125	9	100	OK
257	2133	9	100	OK
258	2141	10	100	OK
259	2150	9	100	OK
260	2158	10	100	OK
261	2166	9	100	OK
262	2175	8	100	OK
263	2183	8	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
264	2191	8	100	OK
265	2200	6	100	OK
266	2208	7	100	OK
267	2216	7	100	OK
268	2224	8	100	OK
269	2233	7	100	OK
270	2241	8	100	OK
271	2249	9	100	OK
272	2258	8	100	OK
273	2266	7	100	OK
274	2274	8	100	OK
275	2282	7	100	OK
276	2291	8	100	OK
277	2299	7	100	OK
278	2307	10	100	OK
279	2316	8	100	OK
280	2324	10	100	OK
281	2332	8	100	OK
282	2341	8	100	OK
283	2349	8	100	OK
284	2357	8	100	OK
285	2366	7	100	OK
286	2374	7	100	OK
287	2382	7	100	OK
288	2390	7	100	OK
289	2399	7	100	OK
290	2407	7	100	OK
291	2415	7	100	OK
292	2424	7	100	OK
293	2432	8	100	OK
294	2440	10	100	OK
295	2448	10	100	OK
296	2457	10	100	OK
297	2465	9	100	OK
298	2473	9	100	OK
299	2482	8	100	OK
300	2490	9	100	OK
301	2498	9	100	OK
302	2507	9	100	OK
303	2515	9	100	OK
304	2523	9	100	OK
305	2532	9	100	OK
306	2540	9	100	OK
307	2548	9	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
308	2556	7	100	OK
309	2565	9	100	OK
310	2573	9	100	OK
311	2581	9	100	OK
312	2590	9	100	OK
313	2598	9	100	OK
314	2606	9	100	OK
315	2614	9	100	OK
316	2623	9	100	OK
317	2631	9	100	OK
318	2639	9	100	OK
319	2648	9	100	OK
320	2656	8	100	OK
321	2664	9	100	OK
322	2673	8	100	OK
323	2681	8	100	OK
324	2689	8	100	OK
325	2698	8	100	OK
326	2706	8	100	OK
327	2714	8	100	OK
328	2722	8	100	OK
329	2731	8	100	OK
330	2739	8	100	OK
331	2747	8	100	OK
332	2756	8	100	OK
333	2764	8	100	OK
334	2772	8	100	OK
335	2781	8	100	OK
336	2789	8	100	OK
337	2797	8	100	OK
338	2805	8	100	OK
339	2814	8	100	OK
340	2822	8	100	OK
341	2830	8	100	OK
342	2839	8	100	OK
343	2847	8	100	OK
344	2855	8	100	OK
345	2864	8	100	OK
346	2872	8	100	OK
347	2880	8	100	OK
348	2888	8	100	OK
349	2897	8	100	OK
350	2905	7	100	OK
351	2913	9	100	OK

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352	2922	9	100	OK
353	2930	8	100	OK
354	2938	9	100	OK
355	2947	9	100	OK
356	2955	9	100	OK
357	2963	7	100	OK
358	2971	9	100	OK
359	2980	9	100	OK
360	2988	9	100	OK
361	2996	7	100	OK
362	3005	9	100	OK
363	3013	8	100	OK
364	3021	9	100	OK
365	3030	9	100	OK
366	3038	9	100	OK
367	3046	7	100	OK
368	3054	8	100	OK
369	3063	7	100	OK
370	3071	7	100	OK
371	3079	7	100	OK
372	3088	7	100	OK
373	3096	8	100	OK
374	3104	9	100	OK
375	3113	7	100	OK
376	3121	9	100	OK
377	3129	9	100	OK
378	3137	9	100	OK
379	3146	9	100	OK
380	3154	9	100	OK
381	3162	7	100	OK
382	3171	8	100	OK
383	3179	9	100	OK
384	3187	9	100	OK
385	3196	9	100	OK
386	3204	7	100	OK
387	3212	9	100	OK
388	3220	9	100	OK
389	3229	7	100	OK
390	3237	7	100	OK
391	3245	9	100	OK
392	3254	9	100	OK
393	3262	9	100	OK
394	3270	9	100	OK
395	3279	9	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
396	3287	7	100	OK
397	3295	9	100	OK
398	3303	9	100	OK
399	3312	9	100	OK
400	3320	9	100	OK
401	3328	9	100	OK
402	3337	9	100	OK
403	3345	9	100	OK
404	3353	9	100	OK
405	3362	9	100	OK
406	3370	9	100	OK
407	3378	9	100	OK
408	3386	9	100	OK
409	3395	9	100	OK
410	3403	8	100	OK
411	3411	8	100	OK
412	3420	8	100	OK
413	3428	8	100	OK
414	3436	8	100	OK
415	3445	8	100	OK
416	3453	8	100	OK
417	3461	8	100	OK
418	3469	8	100	OK
419	3478	8	100	OK
420	3486	8	100	OK
421	3494	8	100	OK
422	3503	8	100	OK
423	3511	8	100	OK
424	3519	8	100	OK
425	3528	8	100	OK
426	3536	8	100	OK
427	3544	8	100	OK
428	3552	8	100	OK
429	3561	8	100	OK
430	3569	8	100	OK
431	3577	8	100	OK
432	3586	8	100	OK
433	3594	8	100	OK
434	3602	8	100	OK
435	3611	8	100	OK
436	3619	8	100	OK
437	3627	8	100	OK
438	3635	8	100	OK
439	3644	8	100	OK

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Frame	Time (mseconds)	Def (mm)	Def limit	Ok/Not OK
440	3652	8	100	OK
441	3660	8	100	OK
442	3669	8	100	OK
443	3677	8	100	OK
444	3685	8	100	OK
445	3694	8	100	OK
446	3702	8	100	OK
447	3710	8	100	OK
448	3718	8	100	OK
449	3727	8	100	OK
450	3735	8	100	OK
451	3743	8	100	OK
452	3752	8	100	OK
453	3760	8	100	OK
454	3768	8	100	OK
455	3777	8	100	OK
456	3785	8	100	OK
457	3793	8	100	OK
458	3801	8	100	OK
459	3810	8	100	OK
460	3818	8	100	OK
461	3826	8	100	OK
462	3835	8	100	OK
463	3843	8	100	OK
464	3851	8	100	OK
465	3860	8	100	OK
466	3868	8	100	OK
467	3876	7	100	OK
468	3884	9	100	OK
469	3893	9	100	OK
470	3901	9	100	OK
471	3909	9	100	OK
472	3918	7	100	OK
473	3926	7	100	OK
474	3934	8	100	OK
475	3943	9	100	OK
476	3951	7	100	OK
477	3959	9	100	OK
478	3967	9	100	OK
479	3976	9	100	OK